

## **QA 58 – Alternative Diets for Juvenile Rheumatoid Arthritis**

### **QUESTION:**

I have a 4 yr old diagnosed recently with juvenile rheumatoid arthritis (JRA). Her mother asked to see the RD at her next WIC appointment and is inquiring about dietary changes for the condition. The only articles I seem to find related to this have to do with supplementing the diet with phytosterols in pill form. Can you help?

### **ANSWER:**

Juvenile rheumatoid arthritis (JRA) has 3 subtypes (systemic, polyarticular, and pauciarticular), with varying degrees of symptoms and involvement. Treatment and medication vary depending upon the type of JRA. Adequate energy and nutrient intake is important because body weight may drop due to poor appetite or excess weight can add stress to the joints. Exercise and movement of joints is encouraged as tolerated by the individual. The interaction of corticosteroids and nonsteroidal anti-inflammatory drugs (NSAIDS), commonly taken by JVA patients, is also important to know in the nutritional management of JVA.

Current research has been done with adults with rheumatoid arthritis (RA) using vegan, vegetarian, gluten-free and omega-3 fatty acid diets. There is some evidence that the first three diets may help to manage symptoms for some people but the research is inconclusive and limited. The use of vegan diets in children may lead to inadequate intake of calcium, vitamin D, vitamin B12, protein and calories. The omega-3 fatty acid oils appear to aid in symptom management and are mentioned by the NIH and Arthritis Foundation as a possible complementary therapy. The capsules may be too much for a four-year-old to swallow and the actual oil may be too fishy tasting for them to drink.

Other research has shown adult patients with RA to be low in antioxidants, selenium, and zinc. Research on supplementation of these vitamins/minerals is however not extensive. Therefore, I would recommend the following:

1. Adequate calorie and protein to meet the patient's needs since there will probably be eating issues due to pain and pain medications.
2. Adequate calcium and vitamin D intake for bone maintenance and growth. Calcium needs are higher for patients on Prednisone due to increased calcium losses. Patients on Prednisone should include 800 mg, 1200 mg or 1500mg calcium per day for 1-5 year olds, 6-10 year olds or 11-24 year olds respectively. Vitamin D and phosphorus intake should be at RDA levels to prevent further bone demineralization.<sup>6</sup>
3. Multi-vitamin/mineral supplement to ensure adequate intake, as indicated.
4. Optimizing omega-3 fatty acids in the diet by eating cold-water fish a couple times/week and using oils such as fish oil or flax seed oil in some cooking.

More research is needed on dietary treatment for these types of conditions, especially in children!

References:

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- 4) Hanninen, O., et al. Antioxidants in Vegan Diet and Rheumatic Disorders. Toxicology 155 (2000) 45-53.
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- 8) <http://www.arthritis.org>
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